STATEMENT OF WORK FOR

PREVENTIVE MAINTENANCE SERVICE CONTRACT

Bavak Speed Gate.

United States Embassy
In Reykjavik, Iceland

March 22, 2023

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1. DESCRIPTION

The U.S. Embassy Reykjavik requires annual preventive maintenance services for two Bavak Speed Gates located on the embassy compound.

1.1. Type of Contract

This is a firm fixed price contract. Prices for all Contract Line Item Numbers (CLIN) shall include proper disposal of toxic substances as per Item 8.4 where applicable. No additional sums will be payable for any escalation in the cost of materials, equipment or labor, or because of the contractor's failure to properly estimate or accurately predict the cost or difficulty of achieving the results required. The contract price will not be adjusted due to fluctuations in currency exchange rates.

1.2. Period of Performance

The contract will be for a period of one-year, with a maximum of four one-year optional periods of performance and will be expected to commence no later than 06/30/2023.

2. PRICING

The rates below include all costs associated with providing preventive maintenance services in accordance with the attached scope of work, and the manufacturer's warranty including materials, labor, insurance (see FAR 52.228-4 and 52.228-5), overhead, profit and taxes (if applicable).

2.1. Base Year. The Contractor shall provide the services shown below for the base period of the contract and continuing for a period of 12 months.

CLIN	Description	Quantity of Equipment	Type of services	No. of service	Unit price / service ($)	Total per year ($)
001	Bavak Speedgate B-secure.	2	Annual			
	Total Base Year					

2.2. Option Year 1. The Contractor shall provide the services shown below for Option Year 1 of the contract, and continuing for a period of 12 months.**)**

CLIN	Description	Quantity of Equipment	Type of services	No. of servic e	Unit price / service ($)	Total per year ($)
101	Bavak Speedgate B-secure.	2	Annual			
	Total Option Year 1					

2.3. Option Year 2. The Contractor shall provide the services shown below for Option Year 2 of the contract, and continuing for a period of 12 months.

CLIN	Description	Quantity of Equipment	Type of services	No. of service	Unit price / service ($)	Total per year ($)
201	Bavak Speedgate B-secure.	2	Annual			
	Total Option Year 2					

2.4. Option Year 3. The Contractor shall provide the services shown below for Option Year 3 of the contract, and continuing for a period of 12 months

CLIN	Description	Quantity of Equipment	Type of services	No. of service	Unit price / service ($)	Total per year ($)
301	Bavak Speedgate B-secure.	2	Annual			
	Total Option Year 3					

2.5. Option Year 4. The Contractor shall provide the services shown below for Option Year 4 of the contract, and continuing for a period of 12 months

CLIN	Description	Quantity of Equipment	Type of services	No. of service	Unit price / service ($)	Total per year ($)
401	Bavak Speedgate B-secure.	2	Annual			
	Total Option Year 4					

2.6. Total for all years:

Base Year	$
Option Year 1	$
Option Year 2	$
Option Year 3	$
Option Year 4	$
TOTAL	$

2.7 Repair option. Repairs are NOT included under this agreement (see 7.1.3) and are to be done outside this contract. However, the Government desires current labor rates in the event that there is an issue discovered during the preventive maintenance of the specified equipment. Please provide your current labor rates in the Repair Option fields below. As stated in 7.1.3 any necessary repairs or parts will be submitted for approval and then billed against a separate PO.

The Contractor is not approved to do any additional work without specific authorization from the Contracting Officer within the U.S. Embassy in Reykjavik.

Repair Labor Rates:

Base Year	$	/hr
Option Year 1	$	/hr
Option Year 2	$	/hr
Option Year 3	$	/hr
Option Year 4	$	/hr
TOTAL	$	/hr

3. NOTICE TO PROCEED

After Contract award and submission of acceptable insurance certificates and copies of all applicable licenses and permits, the Contracting Officer will issue a Notice to Proceed. The Contractor may contact the Embassy Contracting Officer if additional information is needed. The Notice to Proceed will establish a date (a minimum of ten (10) days from date of Contract award unless the Contractor agrees to an earlier date) on which performance shall start**.**

4. EQUIPMENT AND PERFORMANCE REQUIREMENTS

4.1. The **U.S Embassy in Reykjavik, Iceland** requires the Contractor to maintain the following equipment in a safe, reliable and efficient manner.

1. **Equipment Description:**
   - **Manufacturer:** Bavak Security Group
   - **Model:** B-secure
   - **Serial Numbers:** 5151 (SG2) & 5151 (SG1)
2. **Quantity =** two (2) total Speed Gates (both at the Compound Access Center).

4.2. The Contractor shall provide all necessary managerial, administrative and direct labor personnel, as well as all transportation, equipment, tools, supplies and materials required to perform inspection, maintenance, and component replacement as required to maintain the systems in accordance with this work statement. Under this Contract the Contractor shall provide:

- The services of trained and qualified technicians to inspect, adjust, and perform scheduled preventive maintenance.

4.3. Performance Standards

The gates shall be clean and in good operating condition upon completion of the service with the available resources. The preventive maintenance service shall result in the parts of the system serviced being in a condition to operate efficiently and effectively.

5. HOURS OF PERFORMANCE

5.1. The Contractor shall maintain work schedules. The schedules shall take into consideration the hours that the staff can effectively perform their services without placing a burden on the security personnel of the Post. The Contractor shall deliver standard services between the hours of 8:00AM and 4:30 PM Monday through Friday unless mutually agreed upon hours have been coordinated beforehand. No work shall be performed on US Government and local holidays unless mutually agreed upon hours have been coordinated beforehand in writing. The Contracting Officers Representative (COR) and Contractor will deconflict respective holidays and other dates that may affect work prior to the visit.

6. ACCESS TO GOVERNMENT BUILDINGS AND STANDARDS OF CONDUCT

6.1 General. The Contractor shall designate an employee who shall supervise the Contractor's technicians and be the Contractor's liaison with the American Embassy in Reykjavik, Iceland. The Contractor's employees shall be on-site only for contractual duties and not for any other business or purpose. Contractor employees will be given access to the equipment and equipment areas and will be escorted by Embassy personnel.

6.2 Personnel Security. The Government reserves the right to deny access to U.S.-owned and U.S.-operated facilities to any individual. The Contractor shall provide the names, biographic data and police clearance on all Contractor personnel who to be used on this Contract prior to their utilization. Submission of information shall be made within at least two weeks prior to the visit. **No technician will be allowed on site without prior authorization.**

6.2.1 Vehicles. Contractor vehicles will not be permitted inside the embassy compound without prior approval. If vehicle access is necessary, submit contractor vehicle information (Make, Model, License Plate #) along with a written justification as to why access is necessary. This shall be submitted to the COR at least one (1) week prior to the visit.

6.2.2 Government shall issue identity cards to Contractor personnel, after they are approved. Contractor personnel shall display identity card(s) on the uniform at all times while providing services under this contract. These identity cards are the property of the US Government. The Contractor is responsible for their return at the end of the contract, when an employee leaves Contractor service, or at the **request** of the Government. The Government reserves the right to deny access to U.S.-owned and U.S.-operated facilities to any individual.
Government shall issue identity cards to Contractor personnel, after they are approved.

6. 3 Security Clearances. All Work locations under this contractor that are designated as non-Controlled Access Areas may be performed by un-cleared American or local workers. The Contractor shall work closely with the COR, the Post Facility Manager (FM) or the General Services Officer (GSO).

6.4 Standards of Conduct

6.4.1 General. The Contractor shall maintain satisfactory standards of employee competency, conduct, cleanliness, appearance, and integrity and shall be responsible for taking such disciplinary action with respect to employees as may be necessary. Each Contractor employee shall adhere to standards of conduct that reflect credit on themselves, their employer, and the United States Government. The Government reserves the right to direct the Contractor to remove an employee from the worksite for failure to comply with the standards of conduct. The Contractor shall immediately replace such an employee to maintain continuity of services at no additional cost to the Government.

6.4.3 Neglect of Duties. Neglect of duties is unacceptable. This includes sleeping while on duty, unreasonable delays or failures to carry out assigned tasks, conducting personal affairs during duty hours and refusing to render assistance or cooperate in upholding the integrity of the worksite security.

6.4.4 Disorderly Conduct. The Contractor shall not condone disorderly conduct, use of abusive or offensive language, quarreling, and intimidation by words, actions, or fighting. Also included is participation in disruptive activities that interfere with normal and efficient Government operations.

6.4.5 Intoxicants and Narcotics. The Contractor shall not allow its employees while on duty to possess, sell, consume, or be under the influence of intoxicants, drugs or substances which produce similar effects.

6.4.6 Criminal Actions. Contractor employees may be subject to criminal actions as allowed by law in certain circumstances. These circumstances include but are not limited to the following actions: falsification or unlawful concealment, removal, mutilation, or destruction of any official documents or records or concealment of material facts by willful omission from official documents or records; unauthorized use of Government property, theft, vandalism, or immoral conduct; unethical or improper use of official authority or credentials; security violations; organizing or participating in gambling in any form; and misuse of weapons.

6.4.7 Key Control. The Contractor **will not** be issued any keys since contractor personnel will be escorted.

6.4.8 Notice to the Government of Labor Disputes. The Contractor shall inform the COR of any actual or potential labor dispute that is delaying or threatening to delay the timely performance of this contract.

7. SCHEDULED PREVENTIVE MAINTENANCE

7.1. General

7.1.1. The Contractor shall perform preventive maintenance as outlined in Exhibit A - STATEMENT OF WORK. The objective of scheduled preventive maintenance is to eliminate system malfunction, breakdown and deterioration when units are activated/running.

7.1.2. The Contractor shall inventory consumable items and available spare parts during each visit and recommend replacements. In addition, the Contractor will recommend the appropriate tools, testing equipment, safety shoes and apparel for technicians, personal protective equipment (hands, hearing, eye protection), Safety Data Sheet, and cleaning material. Parts shall be Original Equipment Manufacturers i.e. Bavak approved.

7.1.3. Exclusion. This contract does NOT include repair of equipment and replacement of hardware. Unless specified in the Maintenance Checklist / Inspection report. **Hardware replacements will be separately priced out by the Contractor for the Government's approval and acceptance.** The Government has the option to accept or reject the Contractor's quote for parts and reserves the right to obtain similar spare parts from other competitive sources. If required by the Government, the Contractor shall utilize Government-purchased Bavak approved spare parts, if awarded the work. Such repairs/replacements will be accomplished by a separate purchase order. However, this exclusion does not apply if the repair is to correct damage caused by Contractor negligence.

7.1.4. Replacement/repair of any electronic or electrical parts shall be approved by the COR prior to installation of the part. If the Contractor proceeds to replace any electronic or electrical parts without COR approval, the Contractor shall de-install the parts at no cost to the Government.

7.1.5. Stocking of recommended consumables and repair parts is at the discretion of the COR and is dependent upon funding.

7.2 Schedule Approval. The Contractor shall submit to the COR a schedule of preventive maintenance tasks which the Contractor plans to perform. The Contractor shall prepare this schedule for the COR's approval prior to contract work commencement.

7.2.1. The Contractor shall provide trained technicians to perform the service at frequencies stated in Exhibit A and on the equipment called out in this SOW.

7.2.2. It is the responsibility of the Contractor to perform all manufacturers recommended preventive maintenance including preventive maintenance recommended by the manufacturers' technical manuals for the respective equipment.

7.2.3 Additionally, the maintenance contractor shall obtain and keep at the post O&M binders provided by the manufacturers. These binders shall be placed in a location accessible to post personnel to review as needed.

8. PERSONNEL, TOOLS, CONSUMABLE MATERIALS AND SUPPLIES

The Contractor shall provide trained technicians with the appropriate tools and testing equipment for scheduled maintenance, safety inspection, and safety testing as required by this Contract.

The Contractor shall provide all of the necessary materials and supplies to maintain, service, inspect and test all the systems to be maintained except for those specified in section 8.1.1.

8.1 Contractor furnished materials include but are not limited to appropriate tools, testing equipment, safety shoes and apparel for technicians, hands, hearing and eye protection, MSDS, cleaning material and oil spill containment kit except for the Government Furnished Equipment (GFE) identified in 8.1.1 below. Expendable/consumable items shall be maintained in the onsite inventory. See 7.1.5.

8.1.1 Government Furnished Equipment (GFE)

1. Wet/dry vacuum Cleaner
2. Paint stripper / heat gun
3. Wrenches (M4 to M12) and Allen keys (M1 to m12)
4. Grease Pump
5. Bearing grease
6. Metric (Hexagonal) Bolts and Nuts (4 mm to 12 mm)
7. Metric Taps 1,5mm
8. (Cordless) screw machine / drill
9. (Cordless) impact drill / Wrench
10. Metric Socket wrench with extensions and Sockets between M6 and M30
11. Copper grease
12. Digital multi meter That reads Voltage to 0- 600 VAC VDC/ from 0,01 to 10 amps/ resistance / capacity
13. A stepladder / and a ladder that reaches the top of the speedgate column
14. A Personnel lift (for a B-Protect with a drive unit height above 8 feet)
15. A insulation (continuity) tester with a test voltage of minimum 500 volt, also known as "Megger".

Any changes to section 8.1.1 needed by either party will be coordinated in advance of visits.

8.2 Repairs are not included in this contract. See 7.1.3. Exclusions.

8.3 Disposal of toxic substances. The COR is responsible for proper disposal of toxic/hazardous substances. All material shall be disposed of according to Government and Local law.

9. SOFTWARE, LICENSES AND PASSWORDS

Copies of any and all software and licenses needed to control or to adjust the communications module shall be given to the post upon completion of the work.

10. DELIVERABLES

Provide a typewritten report to Post Facilities Manager containing following:

a) System information (make, model, all devices types)
b) Pass/Fail of each feature and type of component tested. If a device fails, note device type, address and location within Post

c) Any comments on system (or device) condition pertaining to service life and dependability.
d) Completed Inspection Report using the form on page of this SOW.

The following items shall be delivered under this contract:

Description	QTY	Delivery Date	Deliver to
Names, biographic data, police clearance on Contractor personnel (#6.2)	1	Two weeks prior to visit	COR
Certificate of Insurance (#11.2)	1	30 days after contract award	CO
PM Checklist signed by Contractor's employee (#7.2.1)	1	After completion of each maintenance service	COR
Invoice (#15)	1	After completion of each maintenance service	COR

11. INSURANCE REQUIREMENTS

11.1 Personal Injury, Property Loss or Damage (Liability). The Contractor assumes absolute responsibility and liability for any and all personal injuries or death and property damage or losses suffered due to negligence of the Contractor's personnel in the performance of this Contract. The Contractor will coordinate with the Contracting Officer to determine which insurance is needed.

The Contractor's assumption of absolute liability is independent of any insurance policies.

11.2 Insurance. The Contractor, at its own expense, shall provide and maintain during the entire period of performance of this Contract, whatever insurance is legally necessary. The **Contractor shall carry the following minimum insurance:**

Public Liability Insurance

Property damage: 2500 $
Cumulative: 10000$

Workers' Compensation and Employer's Liability

11.3 Worker's Compensation Insurance. The Contractor agrees to provide all employees with worker's compensation benefits as required under local laws (see FAR 52.228-4 "Worker's Compensation and War-Hazard Insurance Overseas").

12. LOCAL LAW REGISTRATION

If the local law or decree requires that one or both parties to the contract register the contract with the designated authorities to ensure compliance with this law or decree, the entire burden of this registration shall rest upon the Contractor. Any local or other taxes which may be assessed against the Contract shall be payable by the Contractor without Government reimbursement. The

Contractor will coordinate with the Contracting Officer to determine which registration is needed.

13. QUALITY ASSURANCE PLAN (QAP).

13.1 Plan. This plan is designed to provide an effective surveillance method to promote effective Contractor performance. The QAP provides a method for the Contracting Officer's Representative (COR) to monitor Contractor performance, advise the Contractor of unsatisfactory performance, and notify the Contracting Officer of continued unsatisfactory performance. The Contractor, not the Government, is responsible for management and quality control to meet the terms of the Contract. The role of the Government is to conduct quality assurance to ensure that Contract standards are achieved. Unless otherwise agreed upon, the QAP is:

Performance Objective	SOW Para	Performance Threshold
Services. Performs all services set forth in the Statement of Work (SOW)	1 thru 12 & Exhibit A	All required services are performed and no more than one (1) customer complaint is received per month

13.2 Surveillance. The COR will receive and document all complaints from Government personnel regarding the services provided. If appropriate, the COR will send the complaints to the Contractor for corrective action.

13.3 Standard. The performance standard is that the Government receives no more than one (1) customer complaint per month. The COR shall investigate and notify the Contracting Officer of the valid complaints so that the Contracting Officer may take appropriate action to enforce the inspection clause (FAR 52.212-4, Contract Terms and Conditions-Commercial Items), if any of the services exceed the standard.

13.4. Procedures.

13.4.1 If any Government personnel observe unacceptable services, either incomplete work or required services not being performed, they will immediately contact the COR.

13.4.2 The COR will complete appropriate documentation to record the complaint.

13.4.3 If the COR determines the complaint is invalid, the COR will advise the complainant. The COR will retain the annotated copy of the written complaint for his/her files.

13.4.4 If the COR determines the complaint is valid, the COR will inform the Contractor and give the Contractor additional time to correct the defect, if additional time is available. The COR shall determine how much time is reasonable.

13.4.5 The COR shall, as a minimum, orally notify the Contractor of any valid complaints.

13.4.6 If the Contractor disagrees with the complaint after investigation of the site and challenges the validity of the complaint, the Contractor shall notify the COR. The COR will review the matter to determine the validity of the complaint.
13.4.7 The COR will consider complaints as resolved unless notified otherwise by the complainant.

13.4.8. Repeat customer complaints are not permitted for any services. If a repeat customer complaint is received for the same deficiency during the service period, the COR will contact the Contracting Officer for appropriate action under the Inspection clause.

14. TRANSITIONS/CONTACTS
Within 10 days after contract award, the Contracting Officer may ask the contractor to develop a plan for preparing the contractor to perform contract requirements. The plan shall establish the projected start date for performance of all services required under this contract.

14.1 On site contact. The following are the designated contact personnel between the US Embassy and the Contractor

Contracting Officers Representative

15. SUBMISSION OF INVOICES
The Contractor shall submit an invoice after each preventive maintenance service has been performed. Invoices must be accompanied by a signed copy of the Inspection Report. These documents contain: work performed, including parts replacement and break down calls, if any. No invoice for preventive maintenance services will be considered for payment unless accompanied by the relevant documentation.

The Contractor should expect payment 30 days after completion of service or 30 days after receipt of invoice at the Embassy's payment office, whichever is later. Invoices shall be sent to:

US Embassy in Reykjavik, Iceland – ReykjavikInvoices@state.gov

1. EXHIBIT A –STATEMENT OF WORK

SPEEDGATE

I. GENERAL INFORMATION:

The United States Embassy in Reykjavik, Iceland requires professional services and contractor cost proposals to perform preventive maintenance services of the facility's Bavak Speedgates.

PROJECT REQUIREMENTS:
The Contractor shall perform preventive maintenance as described in this STATEMENT OF WORK. The objective of scheduled preventive maintenance is to eliminate system malfunction, breakdown and deterioration when units are activated/running.

DESCRIPTION OF EQUIPMENT:

1. **Equipment Description:**
   - **Manufacturer:** Bavak Security Group
   - **Model:** B-secure
   - **Serial Numbers:** 5151 (SG2) & 5151 (SG1)
2. **Quantity =** two (2) total Speed Gates (both at the Compound Access Center).

II. GENERAL REQUIREMENTS:

The Contractor shall provide the labor, tools, and materials required to perform all preventive maintenance as outlined in this SOW. Embassy staff have service manuals for gates on-site. The contractor shall confirm government provided manuals are complete and current and provide the Contracting Officer's Representative (COR) a listing of any missing or out of date manuals. The technician shall sign off on every task specified in the Statement of Work and will provide a typewritten copy of their report to the COR or the COR's designate within five business days of each maintenance visit.

III. SCOPE OF WORK – SPEEDGATE PREVENTIVE MAINTENANCE

Contractor shall provide all materials, supervision, labor, tools and equipment to perform preventive maintenance except for those identified in section 8.1.1. All personnel working in the vicinity shall wear and /or use appropriate safety protection while all work is performed. Any questions or injuries shall be brought to the attention of the Post COR and Occupation Safety and Health Officer (POSHO) **immediately**. The Contractor will provide an Safety Data Sheet to the COR immediately upon delivery of each chemical/grease/lubricant to be used by Contractor personnel on-site. The SDS copies will be provided to the COR for approval.

The systems and components to be maintained include bushings, sensors, mechanic parts, and auxiliary devices, such as switches, protective devices and gauges. The attached equipment list provides details.

1. The contractor shall provide the COR with a list of necessary parts and materials.
2. The contractor shall provide the cost for emergency assistance, priced at an hourly rate, within **24 hrs** of being contacted by the COR.

If any discrepancies are found with the gate that are not covered under this scope of work then the contractor shall provide the following:

1. Detailed report noting the discrepancy found.
2. Bill of Materials (BOM) to include component name, quantity, part #, and price for any repair material required and material lead time.
3. The contractor shall provide the cost for emergency assistance, priced at an hourly rate, within **24 hrs** of being contacted by the COR.
4. Price quote for repair labor.

IV. SAFETY & SPECIAL INSTRUCTIONS:

1. Use appropriate personal protective equipment (PPE) when performing work.
2. Contractor shall conduct a safety meeting prior to the start of work.
3. Contractor identifies its lead safety person prior to the start of work.
4. Check all work areas, tools, and equipment to ensure unsafe conditions are eliminated or guarded against.
5. Follow site safety procedures.
6. Schedule maintenance in advance with operating personnel and affected offices (security).
7. Follow approved lockout/tag out procedures.
8. Lockout and disconnect the main power before tightening the main supply lugs in order to avoid the hazard of electrical shock, which could result in serious personal injury or death.
9. Review and follow the manufacturer's instructions.
10. Record results in the equipment history log.
11. Remove lockout/tag out in accordance with appropriate procedures.
12. Report all incidents and near miss incidents to COR and assist as requested in the investigation and corrective action.

At a <u>minimum</u>, the contractor shall comply with the following:

Notes:

- Contractor shall submit to the COR for review, work sheet/checklist that will be used for performing maintenance service.
- A discrepancy report shall be submitted to the COR immediately upon discovery of any condition that could result in equipment failure.

The purpose of this Statement of Work is to ensure the gates for this facility are maintained according to manufacturer's recommendations to ensure the readiness and proper operation of the system.

Any internal inspection, adjustment, cleaning or maintenance must be done with the gate de-energized.

2. Annually/Semi-annually (*choose one*):

The annual service preventive maintenance must include, but is not limited to, the following items:

No.	Part to be checked	Related activities
1.	Motor (clearance, measurement, operation)	Check motor on connection fastening, (oil)leakage, motor cabling intact, clearance in the gearbox, adjustment with regard to gearwheel, wear and tear, strange noises and adjustment. Measure voltage (V) and isolation resistance. Controls PCB: read Amperage of the Motor and note (P910 = 2 max 3,5A)
2.	Drive unit (All drive elements)	Check gearwheel on wear and tear, clearance and position with regard to drive unit compartment (perpendicular). Note: the gearwheel bearing is a self-adjusting bearing (Limited vertical movement ca 4mm is ok). Check slide platforms, drive rods and ball joints on clearance and lubrication and wear and tear. Drive rods should be straight (right-angled).
3.	Manaul hand cranck	Check on visual damage / wear / corrosion
4	Limit switches / encoder	Check fastening damage and detection range of limit switches / Check fastening / damage / sealing of encoder itself and use of sealant between the encoder and motor backplate. Replace during maintenance if not complying
5.	Panel Hinges (operation wear)	Check hinges on noise, securing and clearance.. When squeaking check for lubrication and bending. Used bolts and tightens. Fusing of thread.
6.	Bearings of panel Hinges	Check for rust and proper operation of the Thrust ball bearings of the panel hinges.
7.	Movement of the panels (visible)	Both panels must be in line and perfectly level in closed position. Check this at the top and at the bottom side of the panels. In open position the panels should extend fully (parallel). The space between the panels and drive unit compartment should be parallel.
8.	End limit stop (Gearwheel blocking mechanism)	(Use manual hand crank) Check if gearwheel can be Over cranked and over excited of the drive can cause mechanical damage (Check for F.000 and F.005 messages on the controller) If mechanical stop

		is reached but no F.000 and F.005 is displayed this must be corrected during maintenance visit.
9.	Drive pin (at column side)	The drive rod bearing pin must be lubricated. Check the bolts on the adapter plate wear and tear and connection.
10	Guide wheels (wear) Replace annually	Check the distance between the guide wheel and the sides, top and bottom of the guide track. Replace BOTH wheels in the correct manner (With proper application of grease in the wheel) annually.
11	Guide wheel brackets (Fastening / axel / locknut)	Check the fastening and location of the brackets on the panels. Check axel connection and ability to move up and down in the bracket. Check tightness of the locknut. If needed, adjust the height by turning the axle. Check the connection of the lock nut on the guide wheel axle. Check connection of the guide wheel mounting bracket.
12	Check all mechanical connections	Check all the nuts and bolts of the drive unit bridge pieces and guide wheel track.
13	Manual override system	Check the manual override at functioning. **Switch off voltage** and check if the Speedgate can be opened and closed manually. Check the Spring underneath the gear, Check the fastening of detection ring and proximity switch. Keep the emergency hand crank in a (secure) place near the SG.
14	Column Hinges middle and bottom (bearings / Pins / grease	Check the hinge for rust / bearings inside the panel / Hinge pin and if chamber is filled with grease. Keep pin chamber topped off with grease.
15	Heat tracing	Check if heat tracing is working over the full length Check the thermostats settings and is functioning
16	Powder coat / damage	Check for damage on the powder coating Scratches / Scuffs / Dents/ cracks rips/ Rust/ Make pictures and elaborate on the damage and possible repairs
17	Locks Gate and cabinet	Check the locks on proper functioning and lubrication.
18	Diamond Plating	Check all the diamond plating Are the bolts secure If not use Heli coils and new bolts to repair immediately.
19	Column top hinge Fastening	Open the Column cover plate. If needed adjust the gate wing horizontally in closed position. Loosen Middle and bottom column hinges for this . Check the tightness of the brackets and m24 adjustment thread.
20	Column top hinge Bearing / Pin / grease	Check the hinge for rust / bearings inside the panel / Hinge pin and if chamber is filled with grease. Keep pin chamber topped off with grease.
21	Column base plate bearings	Cheak for Wear / lubrication
22	Drainage points gate drive	Check drainage ports and test drainage capacity and where it leads to. Check downslope of drainage

23	Cabling in drive to and in Junction box	Check all the visible parts of cabling in the drive and columns to and from junction box for damage. Tightness of terminations in Motor switch, junction box, Photo eyes, safety buffer connections
24	Photo electric beam Measurement alignment.	Check photocells / Photo eyes / Photo electric beams on functioning, setting, adjustment, mounting, damage to housing and electrical components. Measure alignment voltage on receiver. Between 1,5 and 2 VDC. Check the correct response of the gate when activated during closing and opening of the Speedgate. Speedgate should stop when an object interrupts the infrared light beam of the photocell during opening. Speedgate should stop when an object interrupts the infrared light beam of the photocell during closing. When the infrared light beam is no longer interrupted the gate will be able to be closed or re-opened.
25	Safety buffers	Check safety buffers during closing and opening of the Speedgate. During opening: Speedgate should stop and close until a release of safety circuit. During closing: Speedgate should stop and then fully re-open. Check the status of the safety buffers at the display of the PCB. Check the securing of the aluminium profile in which the buffer is installed.
26	Detection loops	Check the status of the detection loop on the PCB. Measure isolation resistance of the loops. Note: loops do not have to be adjusted at the same sensitivity: check them separately. When defect, report function, measured value and type of pavement (bricks, asphalt etc.)
27	Induction loop detector	Test with use of a vehicle if the detectors are adjusted sensitively enough. (Should not react on the panels!).
28	Electrical components	Check all electrical terminations connections on the electrical components. Check for damage, discoloration and improper / unsafe operation.
29	Electrical signals	Check all electrical signals on proper functioning. Check is all commands and signals to and from touch screens PLC and controller are ok.
30	PLC Program / PCB Programming	Check for errors or faulty operation. (mostly results in unwanted behaviour of the gate.
31	Check electrical connections	Check all terminations of the PLC and controller.
32	Cabling from Junction Box motor switch to control cabinet	Check for damage on all visual parts of the cabling
33	Traffic lights	Check functionality mounting and failure in LED's
34	Controls Push buttons	Check for damage mounting, functionality, lights and buzzers
35	Controls touch screens	Check for damage mounting, functionality (equal sensibility over screen surface) , voice annunciator.

36	Touch screen components	Check power supply, network switch connection of network cables and fibre optic connections. Behind screen
37	UPS	Check for maximum battery life according to manual. Check if UPC meets minimum operation requirements.
38	Pavement level	The distance between the bottom side of the panels and pavement should be at least app. 50 mm. Bad pavement can also causes damages on detection loops!
39	Upload PLC	Make a Copy of the current PLC Programming of the gate. Note Time date and type of PLC and installation number of the gate
40	Upload Feig controller	Make a Copy of the current Feig controller Programming of the gate. Note Time Date installation number of gate and serial number of controller
41	Sequence of operation test.	Check the Specific OBO Sequence of operation. Also for a minimum 0f 5 minutes let the gate open and close set P.980 to 4 and P.010 to 1
42	Logbook entry	Note performed work, Cycle count, summarise comments from checklist Date and name
43	Inspection report signed off	Is the inspection report signed of by end user who is allowed to sign of on the work? With legible full name and signature.

Lubricating points.

- Lubricate the lubricating points shown in illustration 5-2 in every service with the indicated lubricant.
- The gearbox, linear slide bearings on slide platforms and the rod ends of the drive rods are maintenance free and do not have to be lubricated.

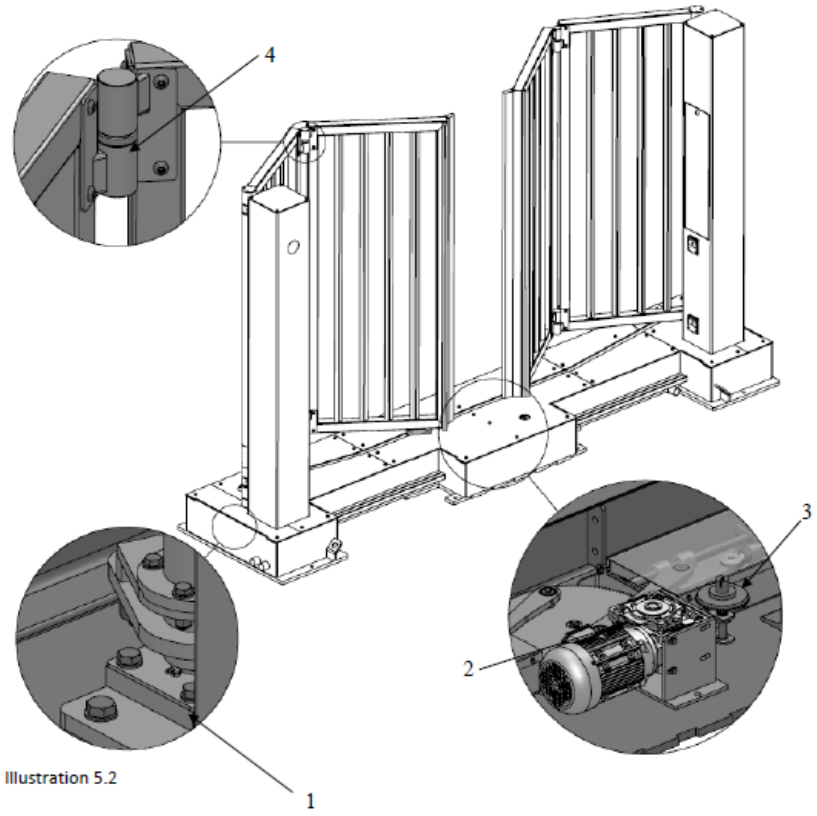

Illustration 5.2

Lubricating point	Part	Lubricant
1	Drive pin bearing	Multipurpose grease DIN 1284
2	Gear wheel	Molycote grease P40
3.	Axles for slide platforms	Multipurpose grease DIN 1284
4.	Hinge bearing (hinges at the panels)	Multipurpose grease DIN 1284

* For a good lubrication the panels have to be moved during lubrication activities.

EXHIBIT B –Bavak Test Protocol

Functioning SG during testing (Controls)

Installation no.:	
Date:	
Technician:	

Master Panel	Slave panel
- Power on Master	- Power on slave
- Power on Slave	- Open Speedgate
- EFO reset	- Stop Speedgate
- Open Speedgate	- Close Speedgate
- Stop Speedgate	- EFO (override close)
- Close Speedgate	- Alarm reset
- EFO (override close)	
- Alarm reset	
- Interlock	

Signal test
Speedgate is open for 60 seconds, voice annunciator that signals that the gate has been left open in the open position goes off. Perimeter gates signal: " the perimeter gate is open". Compound gate signal: " the compound gate is open". This can be reset at Master and Slave panel. When service lid/hatch is removed from left SG column, an acoustic signal goes off (pulsing sound); can be reset at Master and Slave panel. As soon as the Reset has taken place, the acoustic signal stays off. Service lid may remain open. When the door of the control cabinet is opened / removed, an acoustic signal goes off; can be reset at Master and Slave panel. As soon as the reset has taken place, the acoustic signal stays off. Door of control cabinet may remain open. In case of power failure; an acoustic signal goes off; can be reset at Master and Slave panel.

Function of Safeties of Speedgate during Opening (activated by push button open)

SG opens. When photo cells are activated in SG column, the SG will stop and waits for a new command.

SG opens. When the vertical safety edge at following panel is activated, the SG will stop and wait for a new command.

SG opens. When horizontal safety edge is activated at driven panel, SG will stop and wait for a new command.

SG opens. When rectangular detection loop (D1) is activated, SG will stop and wait for a new command.

SG opens. When rectangular detection loop (D2) is activated, SG will stop and wait for a new command.

SG opens. Manual override is activated, SG will stop and wait for a new command.

Function of Safeties of Speedgate during Closing (activated by push button close)

SG closes. When photo cells are activated in SG column, the SG will stop and re-open till full open position has been reached.

SG closes. When the horizontal and vertical safety edge at following panel are activated, the SG will stop and re-open till full open position has been reached.

SG closes. When rectangular detection loop (D1) is activated, SG will stop and wait for a new command.

SG closes. When rectangular detection loop (D2) is activated, SG will stop and wait for a new command.

SG closes. Manual override is activated, SG will stop and wait for a new command.

Photocell pole / poles during opening and closing of SG

During opening and closing the SG will stop immediately when infrared beam of photocell pole is interrupted and wait for a new command.

EFO (Overrule function). Only possible during closing of SG

When an overrule SG close is activated at Master panel or Slave panel, the SG will close immediately, disregarding activation of one of the following provisions : photocell (pole), safety edges, manual override, open command. SG closes completely.

The detection loops are monitored by the PLC and are also overruled by the EFO button

This activation can only be reset at Master panel. Led (EFO) will go out as soon as Reset command is given.

Interlock
When Interlock function is activated, both gates in sally port can be opened at the same time. When Interlock function is deactivated, both gates in sally port cannot be opened at the same time.

Traffic light(s)
SG is closed; traffic lights are red. SG opens; traffic light orange. SG is open; traffic lights turns to green. SG closes; traffic lights turn to orange.

Manual override
When the manual override is activated, no other command will have influence on opening or closing of the SG.

Additional warning of LED Emergency Stop at detection loops (option)
When a detection loop (D1 or D2) is activated and the SG does not open, the LED Emergency Stop will light up. As additional attention for the security that a vehicle has reached the SG too close. When the SG opens, the LED will not light up.

Exhibit C Inspection Report

INSPECTION REPORT

Bavak Beveiligingsgroep B.V.
P.O. Box 334 - 2200 AH Noordwijk
Zwarteweg 19 - 2201 AA Noordwijk,
The Netherlands
Phone: +31 71 4091940
Fax: +31 71403 55 83
E-mail info@bavak.com

Work order number:	Technician:
Name of gate, as user calls it:	Inspection Date:
Installation number:	Inspection times(start-end):
Site responsible Name:	Type of installation:
Department/Contactperson:	
Address:	Replacement parts used:
Zipcode / City:	Repairs necessary:
Country:	
Phone:	

Installation: Speedgate B-Secure / B-Protect / B-Trackless*

** Delete whichever is not applicable*

*** When a detection loop has been declared unfit, please indicate function, measured value and type of paving.*

	Not applicable	All right/Correct	Needs attention	Not all right	Remarks
1) Motor (clearances, measurement, operation)					
2) Drive unit (All drive elements)					
3) Manual hand crank (visual)					
4) Limit switches / encoder					
5) Panel hinges (operation, Wear)					
6) Bearings of panel Hinges					
7) Movement of the panels (visible)					
8) End limit stop (Gearwheel blocking mechanism)					
9) Drive pin (fastening / wear on pin)					
10) Guide wheels (wear) Replace anually					
11) Guide wheel brackets (Fastening / axel / locknut)					
12) Check all mechanical connections					
13) Manual override system (Functionality /wear)					
14) Collmn Hinges middle and bottom					
15) Heat tracing					
16) Powdercoat / damage					
17) Locks gate and cabinet (functionality)					
18) Diamond plating (fasteners)					
19) Collumn Top Hinge fastening					
20) Collumn top hinge bearings / pin / grease					
21) Collumn Baseplate bearings					
22) Drainage of gate drive					
23) Cabling in drive To junctionbox (damage check)					
24) Photo electric beam (working, attachment)					
25) Safety buffers/edges (working, wear (hor./vert.)					
26) Detection loops (working, measurements)**					
27) Induction loop detector					
28) Electrical components (working)					
29) Electrical signals					
30) PLC-progamming / PCB Programming					
31) Check electrical connections					
32) Cabling from junctionbox / motorswitch to cabinet					
33) Traffic lights (working, overall condition)					
34) Controls (Push buttons)					
35) Controls (Touchscreens)					
36) Touch screen components					
37) UPS (Operation)					
38) Pavement level (In relation to install., detec. loops)					
39) Upload PLC					
40) Upload Feig controller					
41) Sequence of operation test					
42) Logbook entry					
43) Inspection report signed off					

Comments

INSPECTION REPORT

Bavak Beveiligingsgroep B.V.
P.O. Box 334 - 2200 AH Noordwijk
Zwarteweg 19 - 2201 AA Noordwijk,
The Netherlands
Phone: +31 71 4091940
Fax: +31 71403 55 83
E-mail Info@bavak.com

No.

Object code:
Customer Name:
Department/Contactperson:
Address:
Postal Code/Place:
Country:
Phone:

Technician:
Inspection Date:
Inspection times(start-end):
Type of installation:
Instalation number:
Material used:
Quotation necessary?:

Installation: Speedgate B-Secure

*** When a detection loop has been declared unfit, please indicate function, measured value and type of paving.*	Not applicable	All right/Correct	Needs attention	Not all right	Remarks
1) Motor (functioning, attachment, drive)					
2) Drive (drive rod , attachment)					
3) Chain (adjustment, attachment)					
4) Spring (adjustment, attachment)					
5) End switches (adjustment, attachment)					
6) Cylinder (working, attachment)					
7) Hinges (working, attachment)					
8) Bearings (working, grease/lubricate)					
9) Movement of the panels					
10) End limit stop					
11) Drive pin (attachment)					
12) Guide wheel bracket					
13) Check all connections/attachments					
14) Manual override (working, adjustment)					
15) Weather/draught strips					
16) Steel plate					
17) Lock (working, attachment)					
18) Blocking element					
19) Service Lid (down position)					
20) Drive arm (tolerance, wear)					
21) Hydro-unit (filters, oil level, oil pressure)					
22) Hoses (wear, connections, leakage)					
23) Compresed air-lines and cylinders					
24) Compressor (oil, oil level, working)					
25) Lubricate tools, Reduction Valve (FRL-unit)					
26) Drainage pump (working)					
27) Photo electric beam (working, attachment)					
28) Safety buffers/edges (working, wear (hor./vert.)					
29) Detection loops (working, measurements)**					
30) Induction loop detector					
31) Electrical components (working)					
32) Electrical signals					
33) PLC-progam					
34) Check Electrical connections					
35) Cabling					
36) Traffic lights (working, overall condition)					
37) Intercom (working, overall condition)					
38) Card reader (working, overall condition)					
39) Remote control (working, range (transmitter)					
40) Coin acceptor (working, overall condition)					
41) Ticket installation (working, overall condition)					
42) Control panel (connection, overall condition)					
43) Pavement level (in relation to install., detec. loops)					
44) Upload PLC					
45) Manual					
Working complete installation (ca. 5 min. test)					

Used material(s)

END OF STATEMENT OF WORK